

### Remarks

In view of the foregoing amendments and the following remarks, reconsideration of the outstanding office action is respectfully requested.

Claim 1 has been amended to recite that "... two successive ones of the program records are separated by two or more schedule records associated with a particular one of the two successive program records...." The basis for this amendment is clear throughout the application as a whole, as well as in the representative reference characters for interleaved program and schedule records as recited by the examples, *i.e.*, ( $\{p1, s11, s12, \dots s1i\}, \{p2, s21, s22, \dots s2i\}, \{p3, s31, s32, s3i, \dots\}$ ) and ( $\{s11, s12, \dots s1i, p1\}, \{s21, s22, \dots s2i, p2\}, \{s31, s32, \dots s3i, p3\}$ ).

Therefore, no new matter is introduced by this amendment.

The objection to the specification for submission of a drawing is respectfully traversed, because the written specification adequately describes the coding and transmission of program records ( $p1, p2, p3$ ) and the schedule records ( $s11, s12, \dots s1i; s21, s22, \dots s2i; s31, s32, \dots s3i$ ) in an interleaved manner.

For example, the specification identifies two exemplary formats for the interleaved coding and transmission at page 5, lines 8-19, as follows:

$\{p1, s11, s12, \dots s1i\}, \{p2, s21, s22, \dots s2i\}, \{p3, s31, s32, s3i, \dots\}$ , and so on; and  
 $\{s11, s12, \dots s1i, p1\}, \{s21, s22, \dots s2i, p2\}, \{s31, s32, \dots s3i, p3\}$  and so on.

Two successive program records ( $p1, p2, p3$ ) are separated by two or more schedule records that are associated with a particular one of the two successive program records. For example, in the first format: the two or more schedule record  $s11, s12, \dots s1i$ , which are associated with program record  $p1$ , separate program records  $p1$  and  $p2$ . In contrast, in the second format: the two or more schedule records  $s21, s22, \dots s2i$ , which are associated with program record  $p2$ , separate program records  $p1$  and  $p2$ .

Because of the interleaved manner in which the program and schedule records are transmitted, the complete set for  $p1$ —either  $\{p1, s11, s12, \dots s1i\}$  or  $\{s11, s12, \dots s1i, p1\}$ —can be read, parsed, and stored in the memory of a receiving device as it is being received. Importantly, this can be carried out before the complete reception of the data for the EPG, *i.e.*, before  $\{p3, s31, s32, s3i, \dots\}$  or  $\{s31, s32, \dots s3i, p3\}$  is received, assuming, for the sake of simplicity, that this is the last interleaved set of program/schedule records. Thus, the EPG data for  $p1$  will be

complete even if there is some sort of disruption that prevents the p3 data from being transmitted in its entirety.

A specific, though simplified, example is also provided at pages 6-7, where a sample EPG is provided. With specific reference to the p1 (Business News) and p2 (Matlock) records, it should be apparent that the p1 record will be complete once the entire schedule information for s11, s12, and s13 is received, i.e., prior to the p2 or subsequent program and schedule records being received.

For these reasons, applicants submit that no drawing is required for a complete understanding of the invention as claimed, and therefore the objection should be withdrawn.

If the PTO maintains its objection, then applicants respectfully request that the PTO identify with particularity the basis for its objection. It is unclear from the description at page 2 of the office action (“The subject matter ... admits of illustration to facilitate understanding”) what exactly the PTO believes is objectionable. As noted above, the present invention as claimed is clearly described and explained in the specification, and applicants believe a drawing is unnecessary for complete understanding of the invention.

The rejection of claims 1-5, 7, 8, and 10 under 35 U.S.C. § 103(a) for obviousness over U.S. Application Publ. No. US2006/0092052 to Baldwin *et al.* (“Baldwin”) in view of U.S. Patent No. 7,058,965 to Gordon *et al.* (“Gordon”) is respectfully traversed.

Baldwin discloses a method that allows a server to generate compressed program data for an EPG so that it can be readily stored and searched on a user’s set top box, which has limited memory availability. The server constructs a code table that assigns code from a standard code set that are normally unused to frequently occurring character pairs in the EPG data, which allows compression of the data. Identifiers are inserted into the compressed data strings to separate sub-strings and this data is sent to the set top box. To search the compressed data at the set top box, the search query is compressed and compared against the compressed EPG data. When a match is found in the substring, the data is decompressed by replacing code in the compressed substring with the corresponding character pairs in the code table.

Although Baldwin discloses sending time related program data (i.e., associated with a specific time period), there is no disclosure or teaching to grouping and sending or interleaving all schedule data associated with a particular program to an EPG. In addition, Baldwin actually teaches at col. 9, lines 42 to col. 10, line 15 of storing program and scheduling

data *separately* and *not in a combined coding manner* as in the present application. Indeed, Baldwin describes separate program tables and separate schedule tables (*see* Figure 6). There is no mention in Baldwin of including schedule data from a schedule table in a program table, or *vice versa*. Baldwin actually states at col. 9, lines 59-61 that “[e]ach schedule record 628 has one or more fields, such as a time field 630 and a program identifier field 632.” This statement confirms that Baldwin provides the same teaching as the prior art set out in the background of the present application at pages 1-2.

Thus, Baldwin teaches a skilled person away from combining program and scheduling data together to save memory space and is merely doing what has already been set out as the prior art in the preamble of the present application.

Although Baldwin describes cross-indexing of data between tables at col. 10, lines 4-15 (*see* Figure 6), this is not the same as interleaving the code and does not result in providing all schedule information associated with a particular program to the EPG in the most compact form as in the present invention.

Furthermore, the problem being solved by Baldwin is to reduce the memory-required to store EPG data at a set top box by compressing data strings. This is different to the problem being solved by the present invention of arranging related program and schedule data items together to ensure that all schedule data relating to a specific program for an EPG is sent and received by the set top box. The type of compression described in Baldwin does not take place and is not required in the present invention; likewise, the type of coding and transmitting data as claimed is not at all performed by Baldwin. Thus, Baldwin provides no disclosure or teaching to the specific problem or solution of the present invention. Baldwin suffers from the same problems as set out in the background of the patent application.

Gordon teaches a video compression and decompression technique that enables an increased number of programs to be transmitted within an MPEG-2 transport stream for the delivery of interactive program guide data. Gordon does teach interleaving audio packets with audio PID with guide slice packets and intra-video slice packets to form a guide/video/audio packet group (*see* col. 36, lines 23-27), but there is no teaching to the interleaving of program and schedule records such that two successive program records are separated *by two or more schedule records associated with a particular program record*. In addition, there is no teaching in Gordon to the problem solved by the present invention of providing a method to ensure the complete reception of schedule record data relating to a particular program record. Thus, there is

nothing in Gordon that would lead a skilled person to considering interleaving any type of EPG data beyond interleaved audio and video packets, let alone the specific manner of interleaving program and schedule data as claimed.

Since neither Baldwin nor Gordon teach the problem or solution of the present invention, the combination of Baldwin and Gordon would not have suggested the present invention to a person of ordinary skill. A skilled person considering the combined teachings of Baldwin and Gordon would not have found the present invention obvious, because there is no indication in either reference of the problem being solved by the present invention or of the solution. Both Gordon and Baldwin rely on the compression of data to reduce memory space required at the set top box rather than the rearrangement of data as in the present invention to ensure delivery of complete sets of data pertaining to a specific program record.

For these reasons, the rejection of claims 1-5, 7, 8, and 10 for obviousness over Baldwin in view of Gordon is improper and should be withdrawn.

This submission is accompanied by a petition for one-month extension of time. All fees associated therewith should be charged to deposit account 14-1138. Any overpayment/underpayment should be credited/charged to this same account.

In view of all the foregoing, it is submitted that this case is in condition for allowance and such allowance is earnestly solicited.

Respectfully submitted,

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